Remarks/Arguments

Claims 68-84 were in the application. Claim 68 has been amended and claim 81 has been cancelled. New claim 85 has been added. Upon entry of this amendment claims 68-80 and 82-85 will be pending. A fee is due for a one-month extension of time and is enclosed. If the Applicants have miscalculated the fee, you are authorized to charge any additional required fee or credit any overpayment to deposit account 13-4365.

Applicants have amended the specification of the present application to incorporate the appropriate priority claim. Applicants note that the priority claim was included in the filing papers of the application and acknowledged on the filing receipt, thus, this amendment should not constitute a late priority claim.

The Examiner rejected claims 68-80, 83, and 84 under 35 USC § 102(a) as being anticipated by U.S. Patent 5,786,606 to Nishio et al. ("Nishio"). Applicants have re-written claim 68 to correspond to original claim 81, but in independent form, and cancelled claim 81. Since claim 81 was not rejected under section 102, and since all other claims are dependent from claim 81, Applicants submit that the Examiner's rejection under 102 has been rendered moot.

The Examiner has rejected all claims under 35 USC § 103(a) as being obvious in view of Nishio in combination with U.S. Patent 6,500,257 to Wang et al. ("Wang"). Applicants respectfully disagree with the Examiner's characterization of the art as applied to their claims. A requirement for a sustainable section 103 rejection is that the prior art must suggest the desirability of the claimed combination. That is, the nature of the problem to be solved or the teachings from the prior art must cause a motivation to combine references. MPEP 2143.01. The Examiner is required to establish this motivation to combine with evidence and reasoning. In the instant case, one of ordinary skill in the art would not have been motivated to combine the teachings of Wang and Nishio as stated in the recent office action. Wang teaches a growth process that involves laterally growing GaN material from a GaN material sidewall to form a region having reduced defects. In contrast, Nishio describes a vertical growth process in which a SiC layer is formed on a silicon substrate followed by formation of GaN-based material layers on the SiC layer. The SiC layer in Nishio contributes to lowering the strain and, thus, defect density of the vertically-grown GaN-based material layers. However, the Wang process relies on a lateral growth process to reduce defects and does not seek to reduce defects (or strain) in a

vertical growth process. One of ordinary skill in the art would not have been motivated to use the SiC layer of Nishio which reduces strain and defects in vertically grown GaN in Wang's lateral growth process. Thus, the claimed method would not have been obvious in view of this combination of references.

Moreover, Wang's teaching focuses on growing GaN on a sapphire substrate. Though Wang does state that it may be possible to use a silicon substrate, one of ordinary skill in the art would not have been motivated to select this embodiment of Wang for combination with Nishio's step of growing the SiC layer. Applicants therefore submit that the claims, as amended, are not obvious in view of Nishio and Wang.

The Examiner has rejected all claims based on the judicially created doctrine of nonstatutory double patenting, in view of Nishio in combination with U.S. Patent 6,255,198. The '198 patent and the present application are commonly owned. A terminal disclaimer in compliance with 37 CFR 1.321(c) is enclosed herewith, rendering this rejection moot.

Applicants believe they have responded to all of the concerns raised by the Examiner. If the Examiner has any questions about the present response, a telephone interview is requested. Reconsideration of this application as amended is hereby requested.

Respectfully submitted,

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